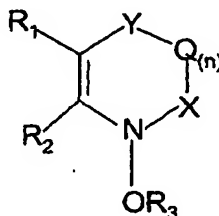


In the Claims:

Please cancel claims 1-19, 32-55 and 77-129. A detailed listing of the claims is provided, below.

1. – 19. (Canceled)

20. (Original) A compound of the formula:



or N-oxides thereof

or salts thereof

wherein

R<sub>1</sub> and R<sub>2</sub> taken together with the carbon atoms to which they are attached form an aryl or heteroaryl ring, wherein said aryl ring is an aromatic containing 6-14 ring carbon atoms and said heteroaryl ring is an oxygen, sulfur or nitrogen heteroaromatic containing from 3 to 13 ring carbon atoms and 1-4 heteroatoms selected from O, S and N, said aryl and heteroaryl rings may each independently be unsubstituted or substituted with lower alkyl or an electron donating group;

Y is O, NR<sub>4</sub> or CR<sub>4</sub>R<sub>5</sub>;

R<sub>5</sub> is hydrogen or lower alkyl;

R<sub>4</sub> is hydrogen or lower alkyl;

X is CR<sub>6</sub>R<sub>7</sub> or NR<sub>6</sub>;

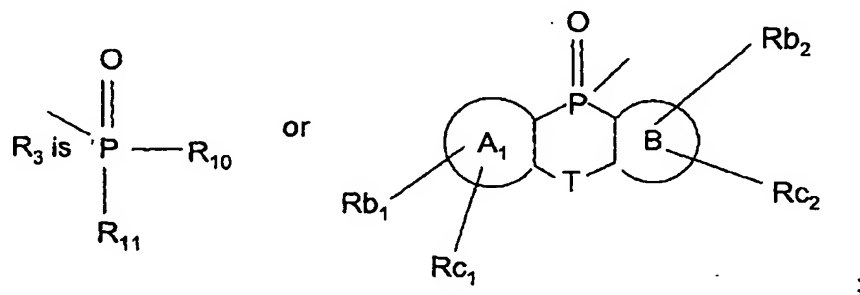
R<sub>6</sub> and R<sub>7</sub> are independently hydrogen or lower alkyl or R<sub>6</sub> and R<sub>7</sub> taken together may form an oxo;

Q is CR<sub>8</sub>R<sub>9</sub> or NR<sub>8</sub>;

n is 0 or 1;

R<sub>8</sub> and R<sub>9</sub> are independently hydrogen or lower alkyl or R<sub>7</sub> and R<sub>8</sub> taken together with the carbon atom to which they are attached form an aryl ring;

or  $R_8$  may be taken with  $R_4$  to form a bond between Q and Y or  $R_8$  may be taken together with  $R_6$  to form a bond between Q and X, provided there is no double bond simultaneously between X and Q and Q and Y; or  $R_4$  and  $R_6$  may form a bond between X and Y, when Y is  $NR_4$  or  $CR_4R_5$  and Q is not present;



$R_{10}$  is  $OR_{12}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

$R_{11}$  is  $OR_{13}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and  $R_{10}$  and  $R_{11}$  may optionally be connected by a bridging group selected from the group consisting of O, S,  $NR_{30}$ , or  $(CHR_{30})_m$ , wherein each  $R_{30}$  is independently lower alkyl or hydrogen and  $m$  is 1-3; and

$R_{12}$  and  $R_{13}$  are independently lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

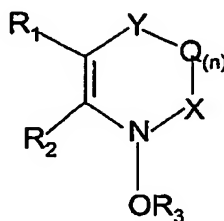
ring  $A_1$  and ring  $B$  are independently aromatic containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms;

$R_{b1}$ ,  $R_{c1}$ ,  $R_{b2}$ ,  $R_{c2}$  are independently hydrogen, lower alkyl or electron donating group;

$T$  is  $(CHR_{31})$ , O, S or  $NR_{31}$ ; and

$R_{31}$  is hydrogen or lower alkyl.

21. (Original) The compound according to Claim 20 of the formula:



or N-oxides thereof

or salts thereof

wherein

R<sub>1</sub> and R<sub>2</sub> taken together with the carbon atoms to which they are attached form an aryl or heteroaryl ring, wherein said aryl ring is an aromatic containing 6-14 ring carbon atoms and said heteroaryl ring is an oxygen, sulfur or nitrogen heteroaromatic containing from 3 to 13 ring carbon atoms, said aryl ring and heteroaryl ring may each be unsubstituted or substituted with lower alkyl or an electron donating group;

Y is O, NR<sub>4</sub> or CR<sub>4</sub>R<sub>5</sub>;

R<sub>5</sub> is hydrogen or lower alkyl;

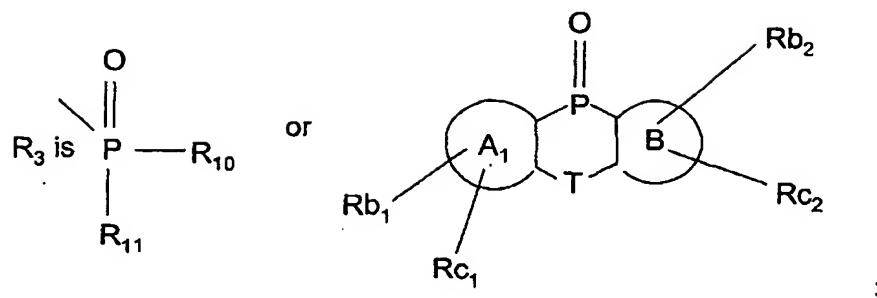
R<sub>4</sub> is hydrogen or lower alkyl;

X is CR<sub>6</sub>R<sub>7</sub> or NR<sub>6</sub>;

R<sub>6</sub> and R<sub>7</sub> are independently hydrogen lower alkyl or R<sub>6</sub> and R<sub>7</sub> taken together may form an oxo;

Q is CR<sub>8</sub>R<sub>9</sub> or NR<sub>8</sub>;

R<sub>8</sub> and R<sub>9</sub> are independently hydrogen or lower alkyl or R<sub>7</sub> and R<sub>8</sub> taken together with the carbon atom to which they are attached form an aryl ring; or R<sub>8</sub> may be taken with R<sub>4</sub> to form a bond between Q and Y; or R<sub>8</sub> may be taken together with R<sub>6</sub> to form a bond between Q and X; provided there is no double bond simultaneously between X and Q and Q and Y;



$\text{R}_{10}$  is  $\text{OR}_{12}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

$\text{R}_{11}$  is  $\text{OR}_{13}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and  $\text{R}_{10}$  and  $\text{R}_{11}$  may optionally be connected by a bridging group selected from the group consisting of O, S,  $\text{NR}_{30}$ , or  $(\text{CHR}_{30})_m$ , wherein each  $\text{R}_{30}$  is independently lower alkyl or hydrogen and  $m$  is 1-3; and

$\text{R}_{12}$  and  $\text{R}_{13}$  are independently lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

ring  $\text{A}_1$  and ring B are independently aromatic containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms;

$\text{R}_{b1}$ ,  $\text{R}_{c1}$ ,  $\text{R}_{b2}$ ,  $\text{R}_{c2}$  are independently hydrogen, lower alkyl or electron donating group;

T is  $(\text{CHR}_{31})$ , O, S or  $\text{NR}_{31}$ ; and

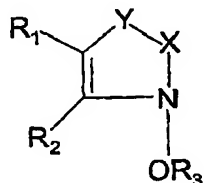
$\text{R}_{31}$  is hydrogen or lower alkyl.

22. (Original) The compound according to Claims 20 and 21 wherein

$\text{R}_1$  and  $\text{R}_2$  taken together with the carbon atoms to which they are attached form an aryl ring or heteroaryl ring, wherein said aryl ring is phenyl or naphthyl and said heteroaryl ring is an oxygen, sulfur or nitrogen heteroaromatic containing from 3 to 13 ring carbon atoms and contains either at least 1 sulfur

ring atom or at least 1 oxygen ring atom or at least two nitrogen ring atoms, said aryl and heteroaryl ring may each be unsubstituted or substituted with lower alkyl or an electron donating group.

23. (Original) The compound according to Claim 20 having the formula:



or N-oxides thereof

or salts thereof

wherein

R<sub>1</sub> and R<sub>2</sub> taken together with the carbon atoms to which they are attached form an aryl or heteroaryl ring, wherein said aryl ring is an aromatic ring containing 6-14 ring carbon atoms and wherein said heteroaryl ring is an oxygen, sulfur or nitrogen heteroaromatic containing from 3 to 13 ring carbon atoms, said aryl and heteroaryl ring may each be unsubstituted or substituted with lower alkyl or an electron donating group;

Y is O, or CR<sub>4</sub>R<sub>5</sub>;

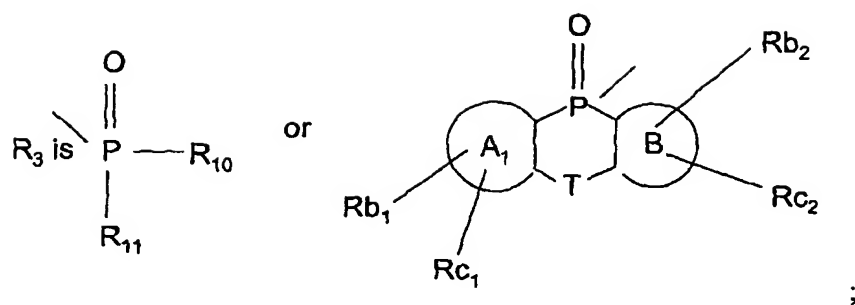
R<sub>5</sub> is hydrogen or lower alkyl;

R<sub>4</sub> is hydrogen or lower alkyl;

X is CR<sub>6</sub>R<sub>7</sub> or NR<sub>6</sub>;

R<sub>6</sub> and R<sub>7</sub> are independently hydrogen or lower alkyl or R<sub>6</sub> and R<sub>7</sub> taken together may form an oxo;

n is 0 or 1;



$R_{10}$  is  $OR_{12}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

$R_{11}$  is  $OR_{13}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and  $R_{10}$  and  $R_{11}$  may optionally be connected by a group selected from the group consisting of O, S,  $NR_{30}$ , or  $(CHR_{30})_m$ , wherein each  $R_{30}$  is independently lower alkyl or hydrogen and  $m$  is 1-3;

$R_{12}$  and  $R_{13}$  are independently lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl, or lower cycloalkenyl lower alkyl;

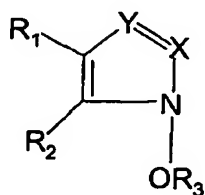
ring  $A_1$  and ring B are independently aromatic containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms;

$R_{b1}$ ,  $R_{c1}$ ,  $R_{b2}$ ,  $R_{c2}$  are independently hydrogen, lower alkyl or electron donating group;

T is  $(CHR_{31})$ , O, S or  $NR_{31}$ ; and

$R_{31}$  is hydrogen or lower alkyl.

24. (Original) The compound according to Claim 20 of the formula:



or N-oxides thereof

or salts thereof

wherein

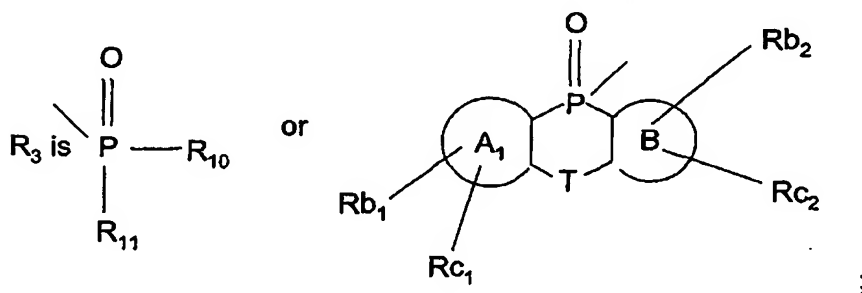
$R_1$  and  $R_2$  taken together with the carbon atoms to which they are attached form an aryl or heteroaryl ring, wherein said aryl ring is an aromatic ring containing 6-14 ring carbon atoms and said heteroaryl ring is an oxygen, sulfur or nitrogen heteroaromatic containing from 3 to 13 ring carbon atoms, said aryl and heteroaryl ring may each be unsubstituted or substituted with lower alkyl or an electron donating group;

Y is N or  $CR_5$ ;

$R_5$  is hydrogen or lower alkyl;

X is  $CR_7$  or N;

$R_7$  is hydrogen or lower alkyl;



$R_{10}$  is  $OR_{12}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl, or lower cycloalkenyl lower alkyl;

$R_{11}$  is  $OR_{13}$ , lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and  $R_{10}$  and  $R_{11}$  may optionally be connected by a bridging group selected from the group consisting of O, S,  $NR_{30}$ , or  $(CHR_{30})_m$ , wherein each  $R_{30}$  is independently lower alkyl or hydrogen and  $m$  is 1-3; and

$R_{12}$  and  $R_{13}$  are independently lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

ring A<sub>1</sub> and ring B are independently aromatic containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms, and

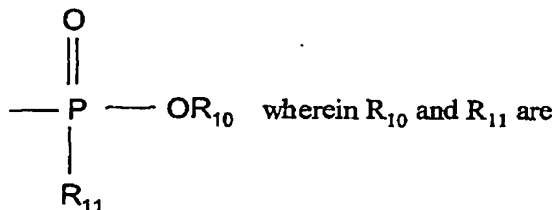
$R_{b1}$ ,  $R_{c1}$ ,  $R_{b2}$ ,  $R_{c2}$  are independently hydrogen, lower alkyl or electron donating group;

T is  $(CHR_{31})$ , O, S or  $NR_{31}$ ; and

$R_{31}$  is hydrogen or lower alkyl.

25. (Original) The compound according to any one of Claims 20-24 wherein  $R_{10}$  is  $OR_{12}$ , lower alkyl, aryl, or aryl lower alkyl;  $R_{11}$  is  $OR_{13}$ , lower alkyl, aryl, or aryl lower alkyl and  $R_{10}$  and  $R_{11}$  may be connected by a group selected from the group consisting of O, S, NH, or  $(CH_2)_m$ , and  $R_{12}$  and  $R_{13}$  are independently lower alkyl, aryl, or aryl lower alkyl.

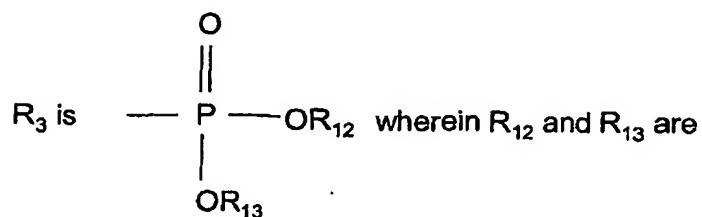
26. (Original) The compound according to Claim 25 wherein  $R_3$  is



independently lower alkyl or aryl.

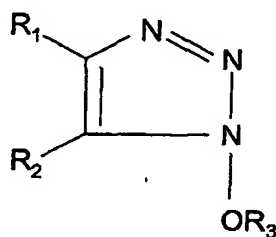


27. (Original) The compound according to Claim 25 wherein



independently lower alkyl or aryl.

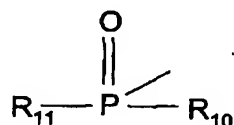
28. (Original) The compound according to Claim 20 of the formula



or N-oxides thereof

or salts thereof.

29. (Original) The compound according to Claim 28 wherein  $R_3$  is



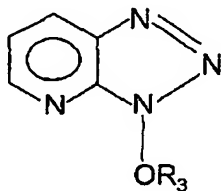
wherein  $R_{10}$  is lower alkyl or aryl or  $OR_{12}$ ;

$R_{11}$  is lower alkyl or aryl or  $OR_{10}$ ;

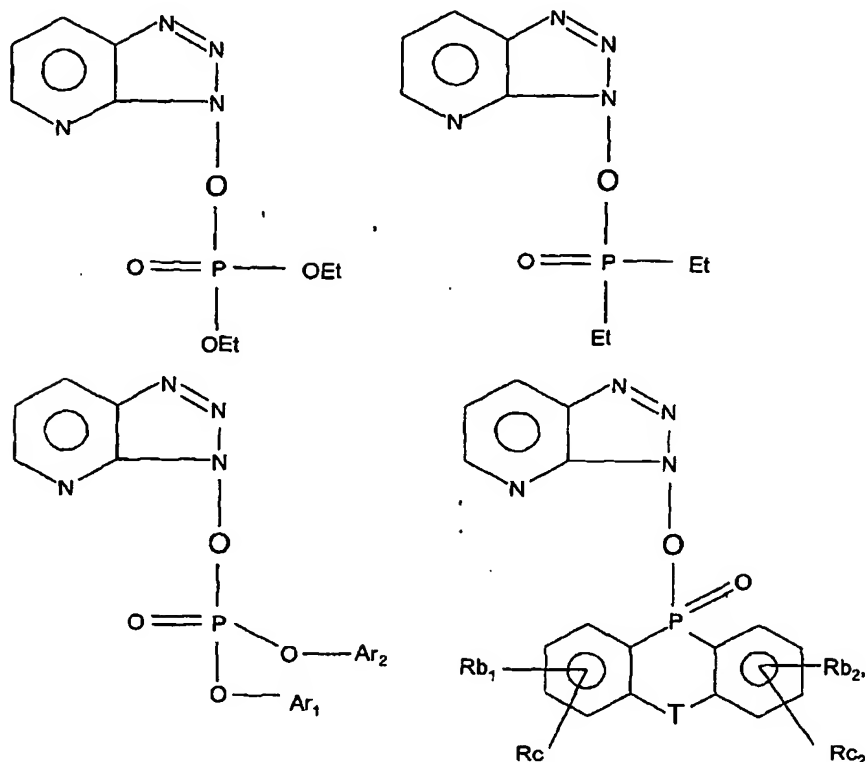
$R_{12}$  is lower alkyl and

$R_{13}$  is lower alkyl.

30. (Original) The compound according to Claim 29 wherein the compound has the formula:



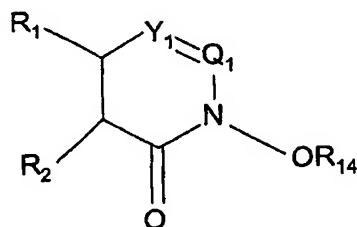
31. (Original) The compound according to Claim 28 wherein the compound is



wherein  $R_{b1}$ ,  $R_{b2}$ ,  $R_{c1}$  and  $R_{c2}$  are independently hydrogen or lower alkyl, and T is O, S, NH or  $CH_2$ .

32. - 55. (Canceled)

56. (Original) A compound or salt, wherein the compound or the cation of the salt is of the formula



wherein

$R_1$  and  $R_2$  taken together with the carbon atoms to which they are attached form an heteroaryl ring wherein said heteroaryl ring is an oxygen, sulfur or nitrogen heteroaromatic containing from 3 to 13 ring carbon atoms and 1-4 heteroatoms selected from O, S, and N, said heteroaryl ring may be unsubstituted or substituted with lower alkyl or electron donating group;

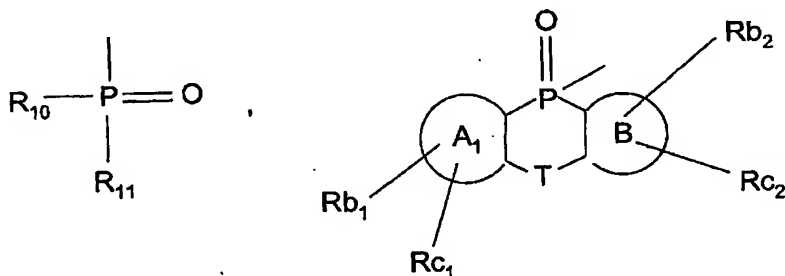
$Y_1$  is N or  $CR_{15}$ ;

$R_{15}$  is H or lower alkyl;

$Q_1$  is N or  $CR_{16}$ ;

$R_{16}$  is H or lower alkyl;

$R_{14}$  is a positively charged electron withdrawing group,



$SO_2R_{17}$ , lower alkyl carbonyl, aryl carbonyl, lower alkyl aryl, or  $BLK_1-AA_1$

$R_{17}$  is aryl, aryl lower alkyl or lower alkyl;

$AA_1$  is an amino acid or peptide less a hydrogen atom on the N-terminus and an OH on the C-terminus;

$BLK_1$  is an amino protecting group,

R<sub>10</sub> is OR<sub>12</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl, or lower cycloalkenyl lower alkyl;

R<sub>11</sub> is OR<sub>13</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and R<sub>10</sub> and R<sub>11</sub> may optionally be connected by a bridging group selected from the group consisting of O, S, NR<sub>30</sub>, or (CHR<sub>30</sub>)<sub>m</sub>, wherein each R<sub>30</sub> is independently lower alkyl or hydrogen and m is 1-3; and

R<sub>12</sub> and R<sub>13</sub> are independently lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

ring A<sub>1</sub> and ring B are independently an aromatic ring containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms, and

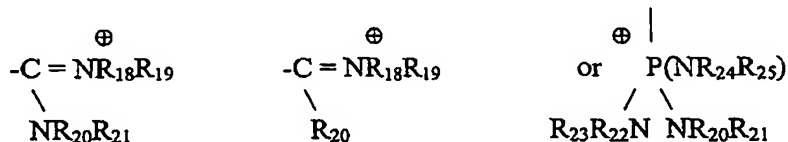
R<sub>b1</sub>, R<sub>c1</sub>, R<sub>b2</sub>, R<sub>c2</sub> are independently hydrogen, lower alkyl or electron donating group;

T is CHR<sub>31</sub>, O, S or NR<sub>30</sub>; and

R<sub>31</sub> is hydrogen or lower alkyl.

57. (Original) The salt according to Claim 56 wherein R<sub>14</sub> is a positively charged electron withdrawing group.

58. (Original) The salt according to Claim 57 wherein R<sub>14</sub> is an electron withdrawing group of the formula

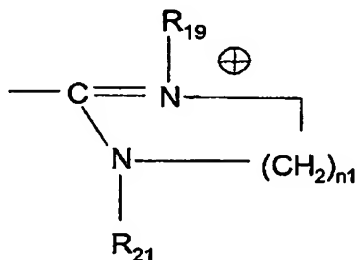
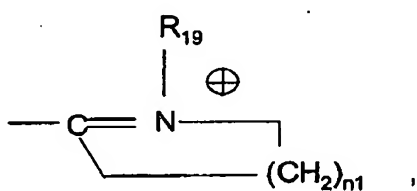


wherein

R<sub>18</sub>, R<sub>19</sub>, R<sub>20</sub>, R<sub>21</sub>, R<sub>22</sub>, R<sub>23</sub> and R<sub>24</sub> are independently hydrogen, lower alkyl, or lower alkoxy lower alkyl or R<sub>18</sub> and R<sub>19</sub> taken together with the atoms to which they are attached form a ring containing up to 6 ring atoms and

up to a total of 5 carbon ring atoms or  $R_{20}$  and  $R_{21}$  taken together with the nitrogen atom to which they are attached form a 5 or 6 membered nitrogen containing heterocyclic ring containing up to a total of 5 carbon ring atoms or  $R_{18}$  and  $R_{20}$  taken together with the nitrogen atom and the carbon atom to which they are attached form a heterocyclic ring, or  $R_{22}$  and  $R_{23}$  taken together with the atoms to which they are attached form a ring containing up to 6 ring atoms and up to a total of 5 carbon atoms or  $R_{24}$  and  $R_{25}$  taken together with the carbon atoms to which they are attached form a ring containing up to 6 ring atoms and up to a total of 5 carbon atoms.

59. (Original) The salt according to Claim 58 wherein  $R_{14}$  is



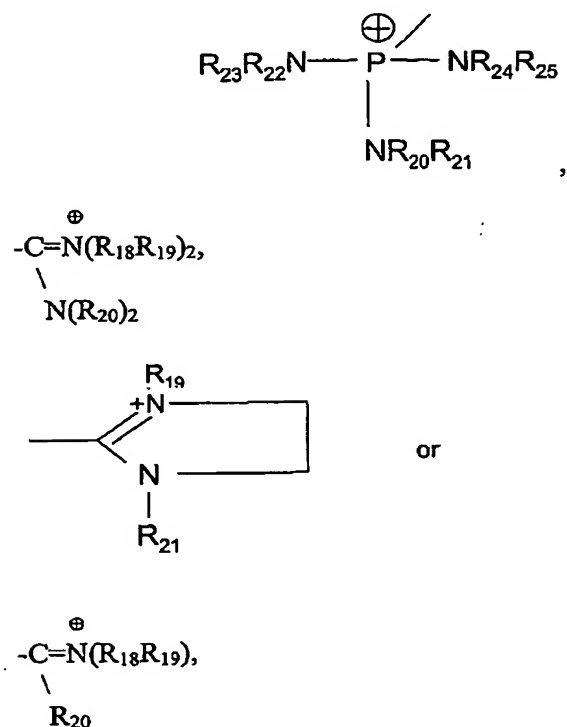
$\oplus$

or  $P(NR_{24}R_{25})_3$

wherein  $R_{19}$ ,  $R_{20}$ , and  $R_{21}$ ,  $R_{24}$  and  $R_{25}$  are independently hydrogen, or lower alkyl or loweralkoxy lower alkyl and  $n_1$  is 0 or 1.

60. (Original) The salt according to Claim 59 wherein  $R_{19}$  and  $R_{21}$  or  $R_{24}$  and  $R_{25}$  are the same

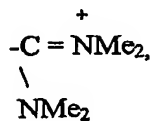
61. (Original) The salt according to Claim 56 wherein R<sub>14</sub> is

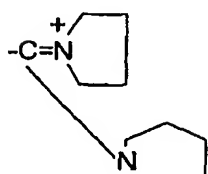
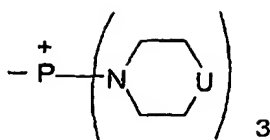
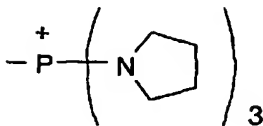
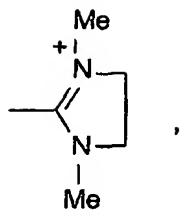


wherein R<sub>18</sub>, R<sub>19</sub>, R<sub>20</sub>, R<sub>21</sub>, R<sub>22</sub>, R<sub>23</sub>, R<sub>24</sub> and R<sub>25</sub> are independently hydrogen, methyl, ethyl, propyl, butyl, pentyl, or CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>3</sub>.

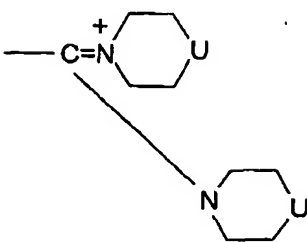
62. (Original) The salt according to Claim 61 wherein R<sub>23</sub>, R<sub>22</sub>, R<sub>20</sub>, R<sub>21</sub>, R<sub>24</sub>, R<sub>25</sub> are the same or R<sub>18</sub>, R<sub>19</sub> and R<sub>20</sub> are the same or R<sub>19</sub> and R<sub>21</sub> are the same.

63. (Original) The compound or salt according to Claim 56 wherein R<sub>14</sub> is  $\oplus$ -P-(NMe<sub>2</sub>)<sub>3</sub>, lower alkyl carbonyl, lower arylalkyl carbonyl, aryl carbonyl,



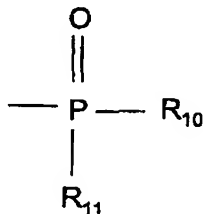


or



H  
|  
wherein U is N, CH<sub>2</sub> or O.

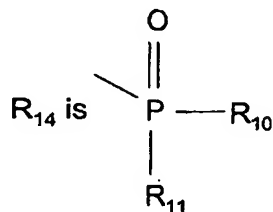
64. (Original) The compound according to Claim 56 wherein R<sub>14</sub> is



65. (Original) The compound according to Claim 64 wherein R<sub>10</sub> is OR<sub>12</sub>, lower alkyl, aryl, or aryl lower alkyl; R<sub>11</sub> is OR<sub>13</sub>, lower alkyl, aryl; or aryl lower alkyl and R<sub>10</sub> and R<sub>11</sub> may optionally be connected by a bridging group selected from the group consisting of O, S, NH, and (CH<sub>2</sub>)<sub>m</sub>; m is 1-3; and

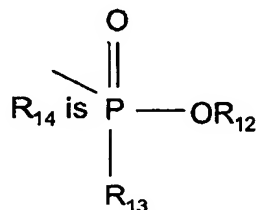
R<sub>12</sub> and R<sub>13</sub> are independently lower alkyl, aryl, or aryl lower alkyl.

66. (Original) The compound according to Claim 56 wherein



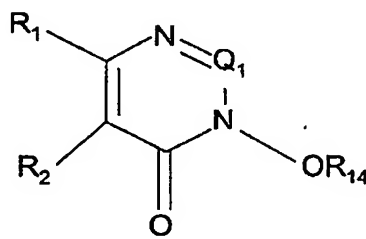
wherein R<sub>10</sub> and R<sub>11</sub> are independently lower alkyl or aryl.

67. (Original) The compound according to Claim 56 wherein

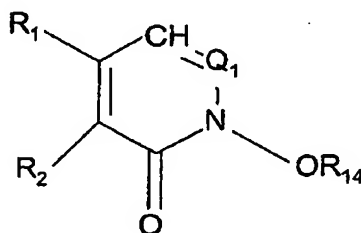


wherein R<sub>12</sub> and R<sub>13</sub> are independently lower alkyl or aryl.

68. (Original) The compound or salt according to Claim 56 wherein the compound or the cation of the salt has the formula

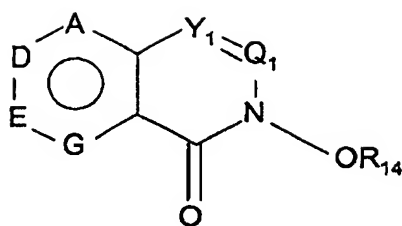


69. (Original) The compound or salt according to Claim 56 wherein the compound or the cation of the salt has the formula



70. (Original) The compound according to Claim 56 wherein the compound or the cation of the salt has the formula





wherein

A is N or CR<sub>24</sub>;

D is CR<sub>25</sub> or N;

E is CR<sub>26</sub> or N;

G is CR<sub>27</sub> or N;

R<sub>24</sub>, R<sub>25</sub>, R<sub>26</sub> and R<sub>27</sub> are independently hydrogen or lower alkyl or electron donating group or R<sub>25</sub> and R<sub>26</sub> or R<sub>24</sub> and R<sub>25</sub> or R<sub>26</sub> and R<sub>27</sub> taken together with the carbon atoms to which they are respectively attached from an aryl ring;

wherein at least one of A, D, E G, is N;

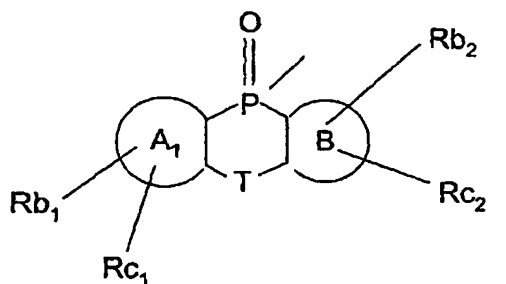
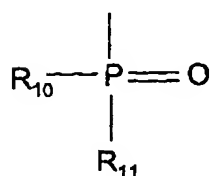
Y<sub>1</sub> is N or CR<sub>15</sub>;

R<sub>15</sub> is H or lower alkyl;

Q<sub>1</sub> is N or CR<sub>16</sub>;

R<sub>16</sub> is H or lower alkyl;

R<sub>14</sub> is a positively charged electron withdrawing group,



SO<sub>2</sub>R<sub>17</sub>, lower alkyl carbonyl, aryl carbonyl, loweralkyl aryl, or BLK<sub>1</sub>-AA<sub>1</sub>

R<sub>17</sub> is aryl, aryl lower alkyl or lower alkyl;

AA<sub>1</sub> is an amino acid or peptide less a hydrogen atom on the N-terminus and an OH on the C-terminus;

BLK<sub>1</sub> is an amino protecting group,

R<sub>10</sub> is OR<sub>12</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl, or lower cycloalkenyl lower alkyl;

R<sub>11</sub> is OR<sub>13</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and R<sub>10</sub> and R<sub>11</sub> may optionally be connected by a bridging group selected from the group consisting of O, S, NR<sub>30</sub>, or (CHR<sub>30</sub>)<sub>m</sub>, wherein each R<sub>30</sub> is independently lower alkyl or hydrogen and m is 1-3; and

R<sub>12</sub> and R<sub>13</sub> are independently lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

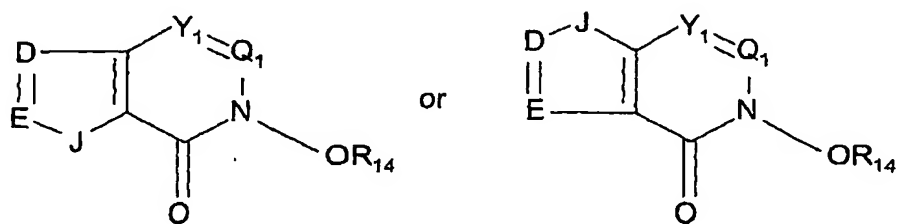
ring A<sub>1</sub> and ring B are independently an aromatic ring containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms, and

R<sub>b1</sub>, R<sub>c1</sub>, R<sub>b2</sub>, R<sub>c2</sub> are independently hydrogen, lower alkyl or electron donating group;

T is (CHR<sub>31</sub>), O, S or NR<sub>31</sub>; and

R<sub>31</sub> is hydrogen or lower alkyl.

71. (Original) A compound or salt wherein the compound or the cation of the salt has the formula:



wherein

D is CR<sub>25</sub> or N;

E is CR<sub>26</sub> or N;

J is NR<sub>28</sub>, O, CR<sub>28</sub>R<sub>29</sub> or S(O)<sub>p</sub>;

R<sub>25</sub> and R<sub>26</sub> are independently hydrogen or lower alkyl or an electron donating group or R<sub>25</sub> and R<sub>26</sub> taken together with the carbon atoms to which attached form an aryl ring;

R<sub>28</sub> is hydrogen or lower alkyl or an electron donating group;

R<sub>29</sub> is hydrogen or lower alkyl;

p is 0, 1 or 2;

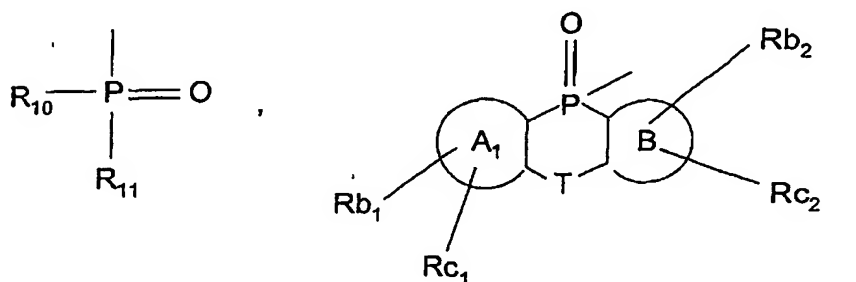
Y<sub>1</sub> is N or CR<sub>15</sub>;

R<sub>15</sub> is H or lower alkyl;

Q<sub>1</sub> is N or CR<sub>16</sub>;

R<sub>16</sub> is H or lower alkyl;

R<sub>16</sub> is hydrogen, a positively charged electron withdrawing group,



SO<sub>2</sub>R<sub>17</sub>, lower alkyl carbonyl, aryl carbonyl, loweralkyl aryl, or BLK<sub>1</sub>-AA<sub>1</sub>

R<sub>17</sub> is aryl, aryl lower alkyl or lower alkyl;

AA<sub>1</sub> is an amino acid or peptide less a hydrogen atom on the N-terminus and an OH on the C-terminus;

BLK<sub>1</sub> is an amino protecting group,

R<sub>10</sub> is OR<sub>12</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl, or lower cycloalkenyl lower alkyl;

R<sub>11</sub> is OR<sub>13</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and  $R_{10}$  and  $R_{11}$  may optionally be connected by a bridging group selected from the group consisting of O, S,  $NR_{30}$ , or  $(CHR_{30})_m$ , wherein each  $R_{30}$  is independently lower alkyl or hydrogen and  $m$  is 1-3; and

$R_{12}$  and  $R_{13}$  are independently lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

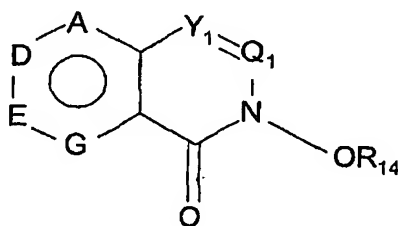
ring  $A_1$  and ring B are independently an aromatic ring containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms, and

$R_{b1}$ ,  $R_{c1}$ ,  $R_{b2}$ ,  $R_{c2}$  are independently hydrogen, lower alkyl or electron donating group;

T is  $(CHR_{31})$ , O, S or  $NR_{31}$ ; and

$R_{31}$  is hydrogen or lower alkyl.

72. (Original) The compound or salt according to Claim 70 where the compound or the cation has the formula



wherein

A is N or  $CR_{24}$ ;

D is  $CR_{25}$  or N;

E is  $CR_{26}$  or N;

G is  $CR_{27}$  or N;

$R_{24}$ ,  $R_{25}$ ,  $R_{26}$  and  $R_{27}$  are independently hydrogen or lower alkyl;

wherein at least one of A, D, E G, is N;

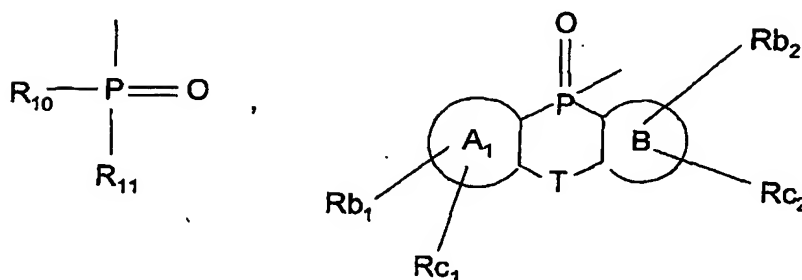
$Y_1$  is N or  $CR_{15}$ ;

$R_{15}$  is H or lower alkyl;

$Q_1$  is N or  $CR_{16}$ ;

R<sub>16</sub> is H or lower alkyl;

R<sub>14</sub> is a positively charged electron withdrawing group,



SO<sub>2</sub>R<sub>17</sub>, lower alkyl carbonyl, aryl carbonyl, loweralkyl aryl, or BLK<sub>1</sub>-AA<sub>1</sub>

R<sub>17</sub> is aryl, aryl lower alkyl or lower alkyl;

AA<sub>1</sub> is an amino acid or peptide less a hydrogen atom on the N-terminus and an OH on the C-terminus;

BLK<sub>1</sub> is an amino protecting group,

R<sub>10</sub> is OR<sub>12</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl, or lower cycloalkenyl lower alkyl;

R<sub>11</sub> is OR<sub>13</sub>, lower alkyl, aryl, aryl lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

and R<sub>10</sub> and R<sub>11</sub> may optionally be connected by a bridging group selected from the group consisting of O, S, NR<sub>30</sub>, or (CHR<sub>30</sub>)<sub>m</sub>, wherein each R<sub>30</sub> is independently lower alkyl or hydrogen and m is 1-3; and

R<sub>12</sub> and R<sub>13</sub> are independently lower alkyl, lower cycloalkyl, lower cycloalkyl lower alkyl, heterocyclic, heterocyclic lower alkyl, lower cycloalkenyl or lower cycloalkenyl lower alkyl;

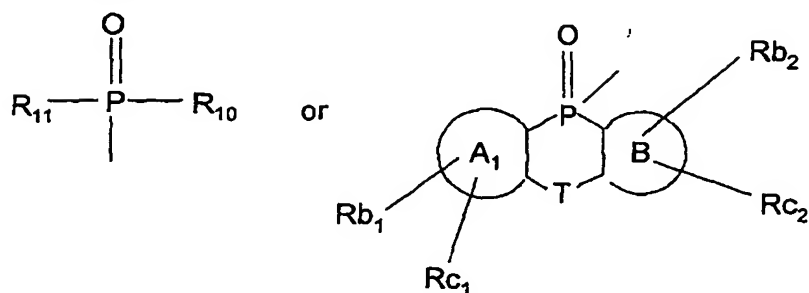
ring A<sub>1</sub> and ring B are independently an aromatic ring containing 6 to 14 ring carbon atoms or cycloalkenyl or cycloalkyl, each containing 5 to 14 ring carbon atoms, and

R<sub>b1</sub>, R<sub>c1</sub>, R<sub>b2</sub>, R<sub>c2</sub> are independently hydrogen, lower alkyl or electron donating group;

T is (CHR<sub>31</sub>), O, S or NR<sub>31</sub>; and

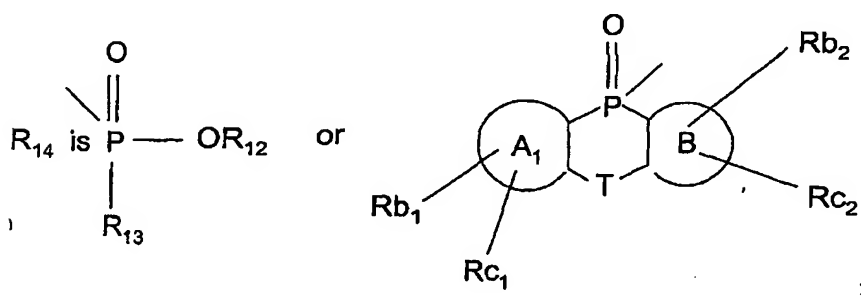
R<sub>31</sub> is hydrogen or lower alkyl.

73. (Original) The compound according to Claim 72 wherein R<sub>14</sub> is



wherein R<sub>10</sub> and R<sub>11</sub>, R<sub>b1</sub>, R<sub>b2</sub>, R<sub>c1</sub>, R<sub>c2</sub> are independently hydrogen or lower alkyl and T is O, CH<sub>2</sub>, NH or S and ring A<sub>1</sub> and ring B are independently an aromatic ring.

74. (Original) The compound according to Claim 56 wherein

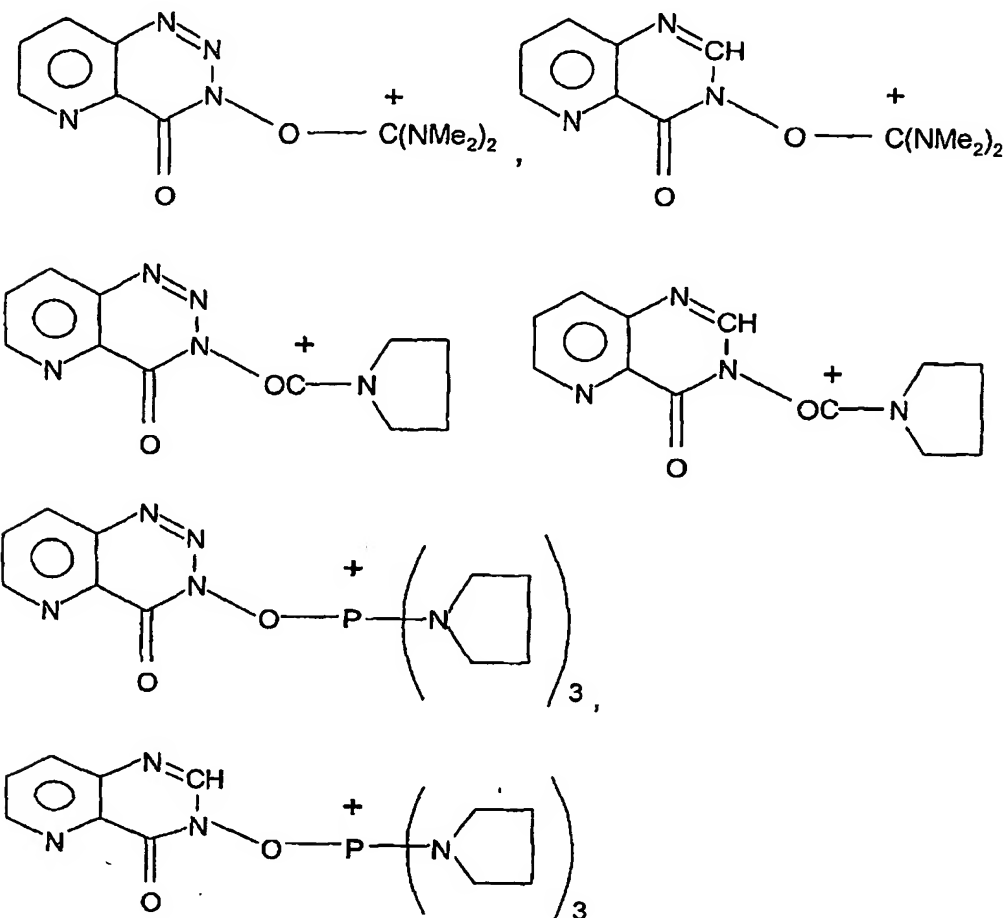


wherein R<sub>12</sub>, R<sub>13</sub>, R<sub>b1</sub>, R<sub>b2</sub>, R<sub>c1</sub> and R<sub>c2</sub> are independently hydrogen or lower alkyl;

ring A<sub>1</sub> and ring B are independently phenyl; and

T is CH<sub>2</sub>, O, S or NH.

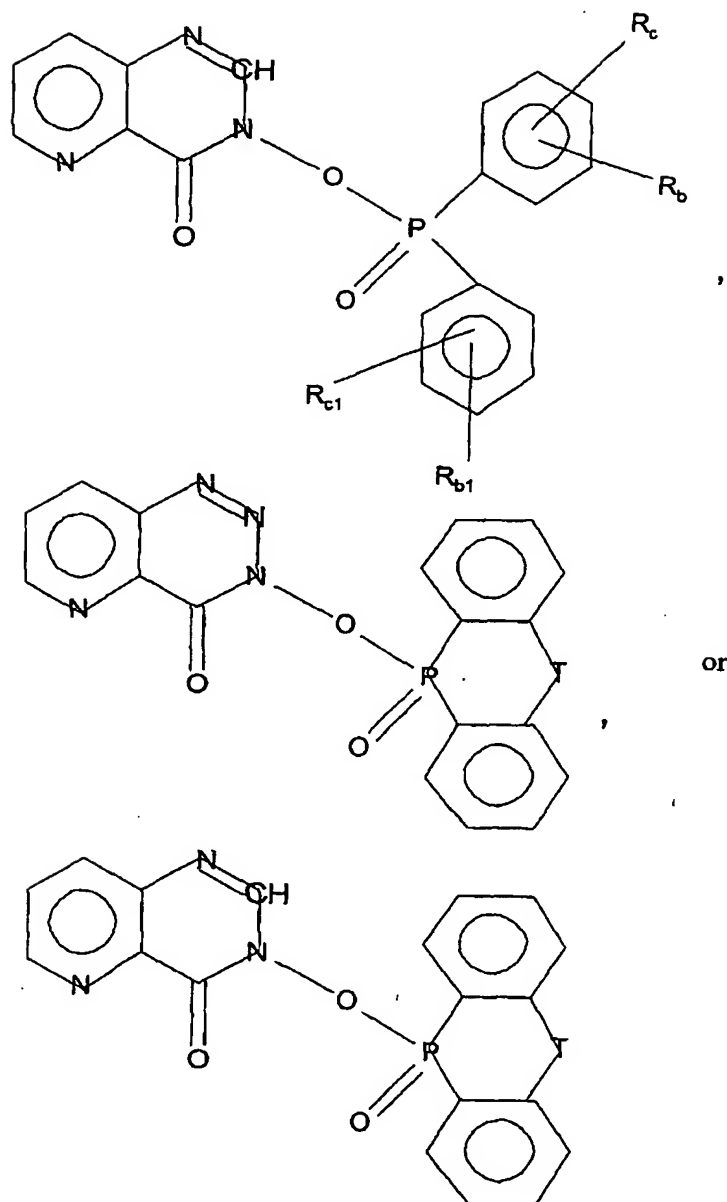
75. (Original) The compound according to Claim 56 wherein the compound is a salt, the cation of which has the formula



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wherein  $R_b$ ,  $R_{b1}$ ,  $R_c$ , are independently lower alkyl or hydrogen and  $T$  is  $CH_2$ ,  $NH$ ,  $O$  or  $S$ .

77. – 129 (Canceled)